First Alert®

BRK SERIES

H.264 DIGITAL DVR
QUICK INSTALL GUIDE

MODELS

PRO-D1610 16 Channel

H.264
VIDEO COMPRESSION

REC
DIGITAL DVR RECORDER

MOBILE PHONE/ WEB READY

1.0TB
DVR OPTIMIZED SATA HDD

PRODUCT OVERVIEW
PACKAGE CONTENTS

WHAT'S IN THE BOX

PRO-D810 H.264
16 Channel Digital DVR
with 1TB Hard Drive

Quick Install Guide

Installation Software
and Manuals

USB 2.0 Mouse

Remote Control

Power Supply for DVR

2 Window
Warning Decals

RJ45 Ethernet Cable
(cable color may be different)

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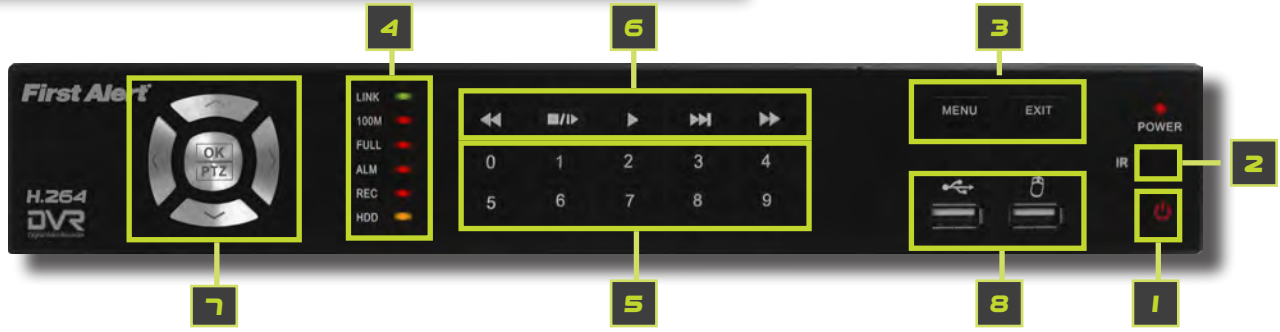
Made in China

About this Quick Start Guide

Thank you for choosing First Alert for your security needs! This Quick Start Guide is designed to provide you with the basic operation of your PRO-D1610 DVR. Please consult the complete User's Manual included on the CD disk for a detailed explanation of all the features and functions of this DVR. We also encourage you to visit our website at www.brkelectronics.com to check for the latest manuals (English and Spanish), firmware updates, downloads, other security camera products and announcements. You'll find this product line under Products >> Security Cameras >> Wired Cameras.

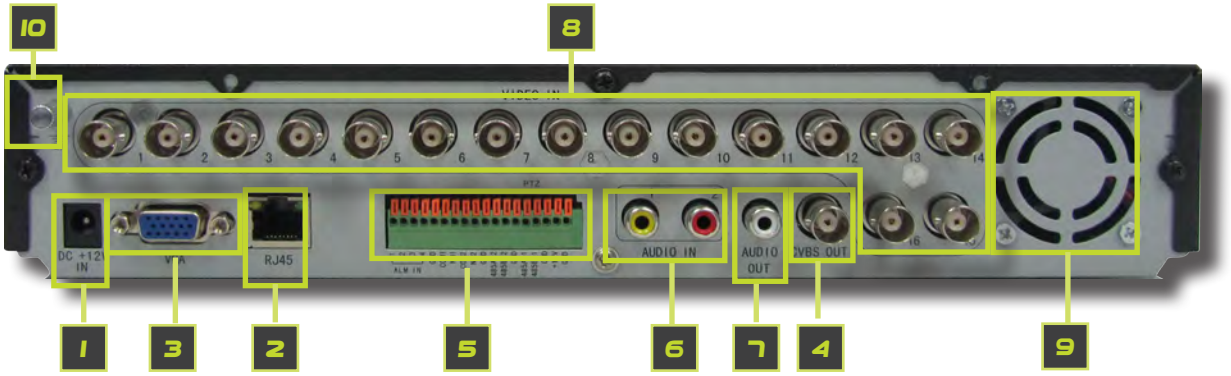
FRONT PANEL



ITEM	FUNCTION	CONTROL	DESCRIPTION
1	Standby		Press to enter standby mode
2	IR Sensor		IR receiver for the remote control
3	MENU/EXIT		Press to open/close the main menu
4	LED Indicators		Shows status of Link, 100M, Full, Alarm, Record, HDD.
5	Channel Numbers	0-9	Press buttons 1~9 to view the selected channel in full-screen. To display 2-digit channels press both buttons slowly. Pressing 0 returns screen to 16 camera display mode.
6	During playback, press the following:	◀◀	Increase reverse playback speed 2X, 4X, 8X
		■/▮▶	Press to freeze playback to one frame, then press again to advance frame-by-frame
		▶	Press to start playback
		▶▶▮	Press to slow playback speed by 1/2, 1/4, 1/8
		▶▶	Press to increase forward playback speed 2X, 4X, 8X
7	Navigation/OK/PTZ (Select direction arrow, then press OK to start PTZ motion)	OK PTZ	In menus, press to confirm selections; in PTZ mode, press to change the navigation buttons to control the connected PTZ camera (not included)
		▲	Press to move cursor up; in PTZ mode, press to pan camera up
		▼	Press to move cursor down; in PTZ mode, press to pan camera down
		◀	Press to move cursor left; in PTZ mode, press to pan camera left
		▶	Press to move cursor right; in PTZ mode, press to pan camera right
8	USB	⇄	Connect a USB flash drive to the left port for data backup and firmware upgrades. Connect a USB mouse to the right port

PRODUCT OVERVIEW
DVR CONTROLS

BACK PANEL



ITEM	FUNCTION	DESCRIPTION
1	POWER Input	DC 12V/3A power connection
2	Network	For connecting RJ45 ethernet cable to PC or router
3	VGA Output	For connecting to a VGA monitor
4	Video Output	For connecting to a BNC monitor (800 x 600) - NTSC or PAL
5	Alarm Input	4 alarm inputs
	Alarm Output	2 alarm outputs
	RS485	For connecting PTZ cameras
	+12V	Power supply for alarm block inputs, the current is 100mA (to prevent short circuits)
6	Audio Input	For connecting audio signal from audio capable cameras or self powered microphones (RCA jacks)
7	Audio Output	For connecting audio signal to amplified speakers (RCA jacks)
8	Video Input	For connecting video signal from cameras (BNC)
9	Fan	Cooling fan
10	Ground	Ground connection

REMOTE CONTROL

Remote Control Operation

The remote control is the secondary input device for navigating the system's interface. In device operation, the OK key has the same function as "left click" of the mouse.

ITEM	FUNCTION	DESCRIPTION
1	STANDBY	Press to turn standby mode ON/OFF
2	LOGIN/LOCK	If "Security" has been enabled in the setup menu, press to open the user password login screen or log off system.
3	Number/Channel Buttons	Press buttons 1~9 to view the selected channel in full-screen. To display 2-digit channels press both buttons slowly. Pressing 0 returns screen to 16 camera display.
4	Window Display	Toggle between split-screen displays: Channels 1-4, 5-8, 9-12, 13-16, 1-9, 8-16, 1-16
5	MENU	Opens the main menu
6	PTZ	Press to open the PTZ control window
7	EXIT	Close menu windows
8	Navigation/OK (Select direction arrow, then press OK to start PTZ motion)	In menus, press to confirm selections; in PTZ mode, press to change the navigation buttons to control the connected PTZ camera (not included)
		Press to move cursor up; in PTZ mode, press to pan camera up
		Press to move cursor down; in PTZ mode, press to pan camera down
		Press to move cursor left; in PTZ mode, press to pan camera left
		Press to move cursor right; in PTZ mode, press to pan camera right
9	+ / -	In menus, press to adjust values
10	RECORD	Press to start manual recording
11	STOP	Press to stop manual recording
12	EXTRA	For future use
13	Playback Controls	Increase reverse playback speed 2X, 4X, 8X
		Press to freeze playback to one frame, then press again to advance frame-by-frame
		Press to start playback
		Press to slow playback speed by 1/2, 1/4, 1/8
		Press to increase forward playback speed 2X, 4X, 8X

Remote Control

TIP: When using the remote control to enter password and camera titles, select the field using the navigation buttons, press OK, and then press the number buttons.

Battery Replacement - Instructions for Use

Always purchase the correct size and grade of battery most suitable for intended use. Replace all batteries of a set at the same time. Clean the battery contacts and also those of the device prior to battery installation. Ensure the batteries are installed correctly with regard to polarity (+ and -). Remove batteries from equipment that is not to be used for an extended period of time. Remove used batteries promptly.

INITIAL SETUP
CAMERA AND POWER CONNECTIONS

STEP 1 ... CONNECTING DEVICES

Follow this diagram to make device connections. This diagram is for illustration purposes only. Cabling and other accessories shown are not included with this DVR unless indicated. See “What’s in the Box” for included devices.

DVR Front Face
Connect Mouse & USB Drive

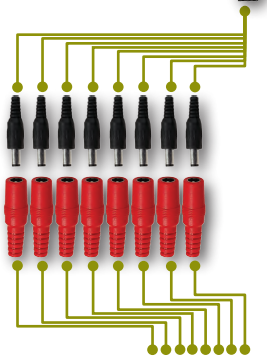
Powering Cameras
Power from a single Power Adaptor and 8-way splitter. 2 required. Not included.

Power from 120V

DC Converter - 12V

Note: To reduce the number of single camera power adaptors required, you may be able to use a larger power adaptor (3A or 5A) and a splitter cable. Contact your local security camera accessories dealer for help in matching splitter, cable, camera and power adaptor requirements.

Splitter - 8 camera



Power to Cameras

Powering Cameras
Power from each Camera Adaptor that came with your camera. Not included

Power from 120V

12V DC Converter

Power to 1 to 16 Cameras

Power from 120V

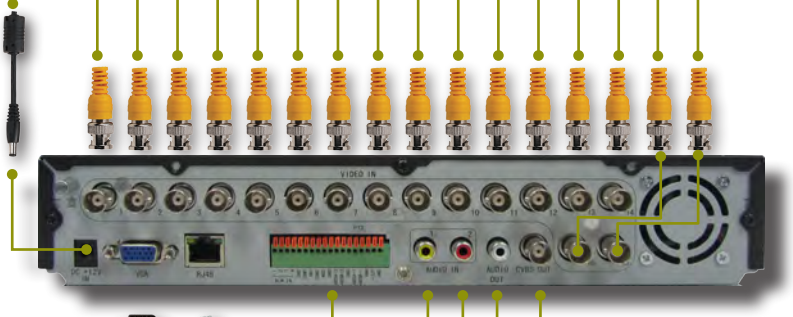
DC Converter - 12V (included with this DVR)

BNC Video/DC Power Cable: (1 per Camera). Note: Cables , Power Adaptors and Cameras not included

To each DVR Channel 1-16

Video to Camera

Power to Camera



Power to DVR

VGA to PC Monitor or TV (Monitor and Cable Not included)

BNC to Security Camera Monitor (Monitor and Cable Not included)

Smartphone through Mobile Internet Setup (Smartphone Not included)

RJ45 Ethernet to Router and Internet

PTZ & Alarm Connections (Cameras not included)

RCA Audio In from 2 Audio Cameras or Powered Microphone (Not included)

RCA Audio Out to Powered Speakers (Not included)

STEP 2 ... SYSTEM START UP

Power On/Off

To power the system On/Off, connect the power cable to the DC 12V port on the rear panel. At startup, the system performs a basic system check and runs an initial loading sequence. After a few moments, the system loads a live display view.

Default Video Output

The default video output for the DVR system is VGA. If you connect a BNC (CVBS) monitor on initial setup, you will need to use the mouse "Scroll Wheel" to switch to the BNC output to be able to use the mouse. Roll the mouse "Scroll Wheel" backward to go to BNC and forward to go to VGA. The REMARK screen is shown on startup.

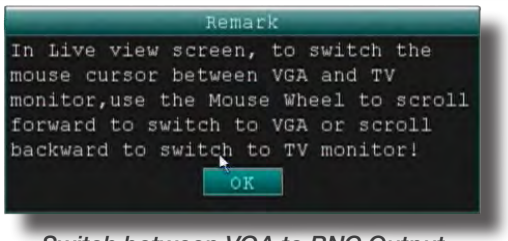
Password

ATTENTION: By default, passwords are disabled on the system. You do not need to enter a password when accessing any system menus. However, for security purposes, it is highly recommended to enable passwords on the system using the Password Menu. See "Password" section for details on setting up passwords. Click APPLY to access the menus or click EXIT to cancel password setup and return to the LIVE VIEW screen.

Standby Mode

The system can also be put into Standby Mode. Power will remain to the system but will not be recording. To start/stop Standby Mode:

1. Press and hold the POWER button on the front panel or the STANDBY button on the remote control until the prompt closes. The system enters standby mode. You can also enter Standby mode through the Quick Access Menu. See below.
2. To exit standby mode, press and hold the POWER button on the front panel or remote control until the system beeps. The system will begin powering up.


Remark
In Live view screen, to switch the mouse cursor between VGA and TV monitor,use the Mouse Wheel to scroll forward to switch to VGA or scroll backward to switch to TV monitor!
OK

Switch between VGA to BNC Output

User Login Menu

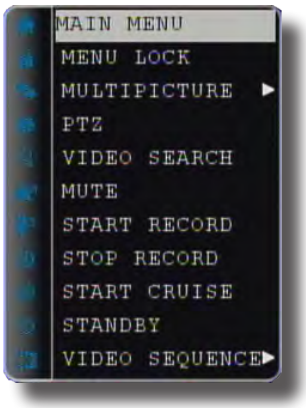
No HDD installed

NOTE: If there is no HDD installed, or the HDD is not recognized, or the HDD is not formatted it will display a red【H】in the video preview interface. You must format the HDD in the DVR before first use. See: Menu > HDD management > Format. After formatting, the system will restart.

Main Menu Access

To open the Main Menu: Right-click anywhere on-screen to open the Quick Access Menu and select MAIN MENU (mouse only), or press the MENU button on the remote control or front panel of the system.

NOTE: If passwords are enabled on the system, you need to enter the 1-8 digit numerical password to open the Main Menu.



Quick Access Menu

Quick Access Menu

When using the mouse, use the Quick Access Menu to access several system options, including the Main Menu.

- MAIN MENU: Opens the main system menu
- MENU LOCK: Logs current user off the system. Re-login required.
- MULTIPICTURE: Configures Channels to display in Live View
- PTZ : Opens the PTZ control menu
- VIDEO SEARCH: Open the Search Menu to view recorded video
- MUTE: Mute listen-in audio on the system. Recording of audio is still enabled.
- START RECORD: Start manual recording
- STOP RECORD: Stop manual recording
- START CRUISE or STOP CRUISE: Toggles between both commands. Click to start preset PTZ Camera motion. When Cruise is started and you bring up this Quick Access Menu again, the option will now show STOP CRUISE.
- STANDBY: Puts system in standby mode.
- VIDEO SEQUENCE: Rotates through ONE CHANNEL, FOUR CHANNEL and NINE CHANNEL Live View Screens.

Main Viewing Screen Showing No HDD in DVR

Main Menu

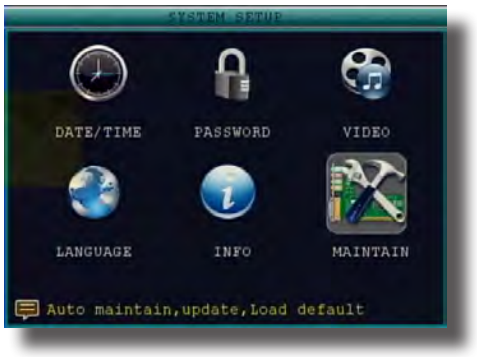
1. DISPLAY: Configure Display Setup
2. RECORD: Configure recording parameters (quality, resolution), set record modes, and enable/disable audio recording. Note: Audio capable cameras (not included) are required for audio recording on the system.
3. NETWORK: Configure Network Setup
4. SEARCH: Search for recorded video on the system.
5. DEVICES: Opens DEVICE MANAGEMENT Menu. Configure HDD, ALARM, MOBILE, MOTION and PTZ.
6. SYSTEM: Opens the SYSTEM SETUP Menu, which lets you set the system language, date and time, device IDs and passwords, system maintenance, configure video settings and gather system information like serial number and software version.

Main Menu

STEP 3 ... LANGUAGE, DATE AND TIME

Setting Up Language/Date/Time

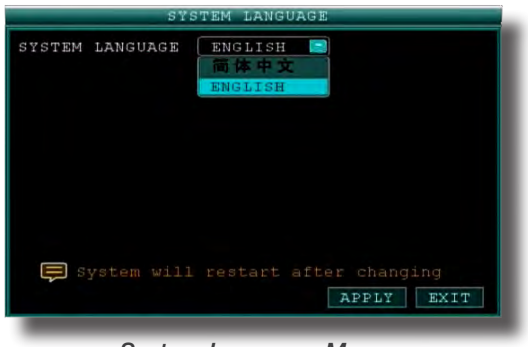
Use the SYSTEM SETUP Menu to set the system language, date and time, device IDs and passwords, system maintenance, configure video settings and gather system information like serial number and software version.



System Setup Menu

Language

To change the system language:, from the drop-down menu select LANGUAGE. Click APPLY. Click OK in the confirmation window.
NOTE: The system will restart when you finish system language setup. The default is English.



System Language Menu

US World Time Zones - UTC Codes

UTC stands for Universal Time Coordinates or Greenwich Mean Time (GMT)

Eastern:	-5
Central:	-6
Mountain:	-7
Western:	-8
Alaska/Hawaii:	-9 through -11

Date/Time

It is highly recommended to immediately set the date and time when first setting up your system. To set the date and time:

1. Click DATE/TIME and configure the following options:
   - DATE: Enter the day, month, and year.
   - DATE FORMAT: Select DD/MM/YYYY, MM/DD/YYYY, or YYYY/MM/DD
   - TIME: Enter the time
   - TIME FORMAT: Use the drop-down menu and select 12HOURS or 24HOURS. If 12HOURS is selected, then set AM or PM.
   - DST: Use the drop-down menu to select ON/OFF to enable/disable Daylight Savings Time. See below for details on setting DST.
2. Click ZONE to enter your time zone from -12 to +12. To find your time zone visit www.worldtimezone.com or other similar sites.
   See Info box for US codes.
3. Click SAVE DATE AND TIME. The new date and time are saved. Click EXIT.

System Time/Date Setup

Daylight Savings Time (DST)

To set daylight savings time:

1. Under DST, select ON. DST options appear.
2. Under DST MODE select one of the following:
   - DEFAULT: The Default setting will apply the United States daylight savings time period from the second Sunday of March to the first Sunday in November (go to step 3)
   - CUSTOM: Set customized start and end times for DST (go to step 4)
3. If using the DEFAULT, click APPLY. Click EXIT.
4. If setting a CUSTOM DST, use the drop-down menus to select a week and month for the start and end times.
5. Click APPLY. Click OK in the confirmation window.
6. Click EXIT in each menu until all windows are closed.

Why Set a Date & Time?

It's important to set the proper date and time before continuing so that you can easily locate recorded events. Inaccurate dates and times on files may affect their admissibility as evidence in court. In addition, when changing current time settings, to avoid possible confusion with the time stamps on recorded and currently recording files, stop all ongoing recording processes before altering the system time and restart recording using the new settings.

STEP 4 ... CAMERA DISPLAY SETUP

Setting Up Cameras for Viewing and Recording

Use the Display Setup menu to customize channel titles, show/hide the date and time in live viewing and playback, and enable/ disable preview channels. To customize Display settings, click DISPLAY from the Main Menu:

Display

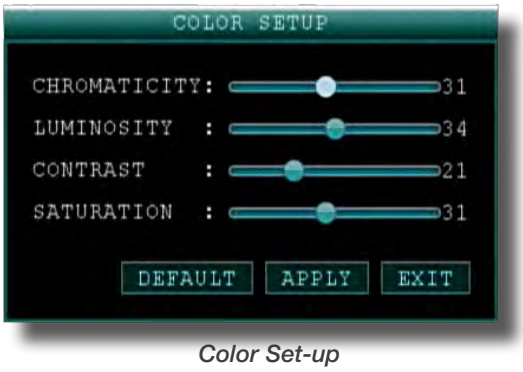
1. Configure the following options:
   - NAME: Click any of the fields and enter a new title for the selected channel using the Virtual Keyboard (mouse only)
   - POSITION: Reposition the channel title; select U-L, D-L, U-R, D-R, where U(UP), D(DOWN), L(LEFT) and R(RIGHT) or OFF. If OFF, the title will not be displayed for the selected channel
   - COLOR: Adjust CHROMATICITY, LUMINOSITY, CONTRAST, and SATURATION for the selected channel
   - DISPLAY TIME WHILE IN LIVE VIEW: Select ON/OFF to show/ hide the date and time during live viewing
   - DISPLAY TIME WHILE RECORDING: Select ON/OFF to show/hide the date and time during playback.
2. Scroll down to change the settings for the remaining channels
3. Click APPLY to save your settings. Click OK in the REMARK window. Click EXIT.

Display Setup Menu

Video

Use the VIDEO SETUP menu to set the resolution and camera setup on the system. To configure Video options, from the MAIN MENU select SYSTEM then VIDEO:

1. Under VIDEO SYSTEM, select NTSC or PAL. (See info box below)
2. Under VGA RESOLUTION, select 800 x 600, 1024 x 768, 1280 x 1024, 1366 x 768, 1440 x 900.
3. Under LOOP TIME (SECOND), enter with virtual keypad from 1 to 300. Sets the time each channel is visible when using VIDEO SEQUENCE from the Quick Access Menu.
4. Under ADJUST MARGIN, adjust TOP, BOTTOM, LEFT, RIGHT margin with slider from 0-6. Also adjust Display from VGA or CVBS. Default is VGA and 0 for all margins
5. Click APPLY. Click OK in the REMARK window.



Color Set-up

Adjust Margin

Video Setup Menu

Audio/Video Recording

Caution: Audio surveillance in some states is illegal or requires permission from one or both parties to record someone's voice. Laws are also different from residential vs. commercial applications. Some federal, state, and local laws prohibit certain surveillance activities and/or the use or distribution of the information obtained from such activities. Prior to using this system, you should become familiar with the pertinent laws to ensure compliance with those applicable to surveillance activities.

NTSC or PAL?

NTSC (National Television Standards Committee) is the video system or standard used in North America and most of South America. In NTSC, 30 frames are transmitted each second. Each frame is made up of 525 individual scan lines.

PAL (Phase Alternating Line) is the predominant video system or standard mostly used overseas. In PAL, 25 frames are transmitted each second. Each frame is made up of 625 individual scan lines.

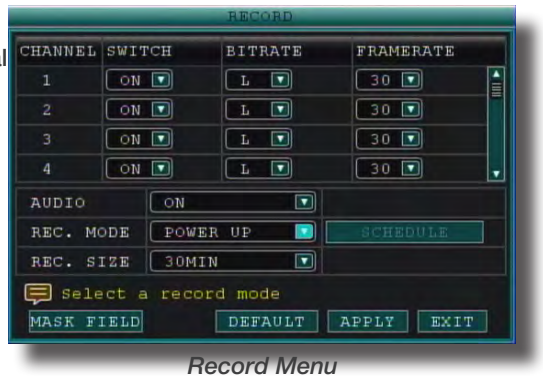
STEP 5 ... RECORDING

RECORD Mode

Configure Recording Options:

In this Menu you have three recording options: POWER UP (Continuous), TIMER RECORD (enables SCHEDULE menu) and ALARM (within SCHEDULE menu). By default, the DVR is set to record continuously. Set parameters as follows:

1. From the Main Menu click RECORD. Under SWITCH, use the drop-down menus and select ON/OFF to enable/disable recording from the selected channel. Note: If SWITCH is set to OFF, then Motion Detect, Alarm and Manual Record are also disabled for that channel.
2. BITRATE (Kbps): See table for details. Note: Resolution for this DVR is at CIF due to the number of channels.
3. FRAMERATE: Choose the recording frame rate 1-30, (fps – frames per second). The lower the value, the less life-like and more jerky the recorded movements will be. However, a lower frame rate uses less HDD space. Make your choice depending on the precision with which you want to follow the events being recorded. Frame-rate of each channel can be adjusted but is limited by the total resources available. The total frame rate for all channels combined cannot exceed 420 (NTSC) fps. Note: Although the chipset is NTSC 480, part of the resources are used for other internal functions and cannot be allocated to recording resources.
   The ratios of D1, HD1 and CIF are as follows: 1 D1= 4 x CIF, 1 HD1 = 2 x CIF.
4. AUDIO, select ON or OFF. If audio recording is enabled, the system will record audio from connected audio capable cameras (not included). See caution statement on audio recording in **Video** section.
5. REC. MODE, select POWER UP or TIMER RECORD. If you select POWER UP, the system will record continuously when the system is powered on. If you select TIMER RECORD, you have to set a recording schedule on the system.
6. REC. SIZE (Record Size), select 15MIN, 30MIN, 45MIN, or 60MIN.
   NOTE: Record Size sets the file size for recorded video files on the system. Instead of recording data as one large file, the system will divide the data into blocks of 15, 30, 45, or 60 minutes. This makes the recorded data easier to search
7. MASK FIELD lets you block a specific portion of a channel you do not want recorded or shown on the display screen. This can be useful if you need to conceal a sensitive area being captured by the camera. See next section for details.
8. Click APPLY. Click OK in the REMARK window. Click EXIT.



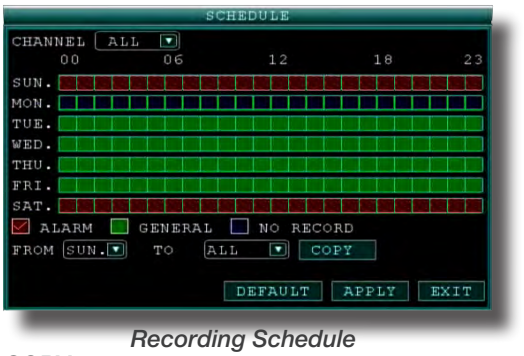
Record Menu

BITRATE IN KBPS			
IMAGE QUALITY	LOW	MEDIUM	HIGH
CIF	384	512	768
HDI	N/A	N/A	N/A
DI	N/A	N/A	N/A

Recording Schedule (TIMER RECORD)

You can program the DVR to record according to a customized recording schedule. The Schedule Grid shows the days of the week and hour blocks 00~23. You can set Alarm Recording (Red), General Recording (Green), or No Recording (Blue) to each time block of each day. To set a recording schedule:

1. Open the Main Menu and click RECORD.
2. Under REC. MODE, select TIMER RECORD.
3. Click SCHEDULE. The Schedule menu opens.
4. Under CHANNEL, select specific channels or select ALL.
5. Below the grid, click either ALARM (red), GENERAL (Green), or NO RECORD (Blue) and then click a time block on the desired day.
6. Use the FROM/TO drop-down menus to copy the schedule of one day to another. For example, if you want your schedule for Monday to be the same on Wednesday: under FROM select MON, under TO select WED, and then click COPY.
7. Click APPLY. Click OK in the REMARK window. Click EXIT.



Recording Schedule

CCTV Resolution

CCTV resolution is measured in vertical and horizontal pixel dimensions and typically limited by the capabilities of both the camera and the recorder that you are using for your CCTV surveillance installation. CCTV systems use an analog video signal. For television specifications (which CCTV uses) the highest resolution that can be captured and stored is 704 x 480 (NTSC for the United States) and 720 x 576 (PAL for Europe). This resolution is known as D1 resolution. A high end CCTV recorder is capable of recording at up to D1 resolution.

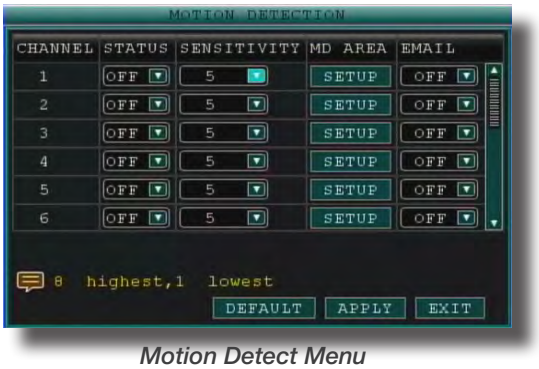
CCTV Resolutions
D1: 704 x 480
HD1 (2CIF): 704 x 240
CIF: 352 x 240
QCIF: 176 x 120

Motion Detect Setup

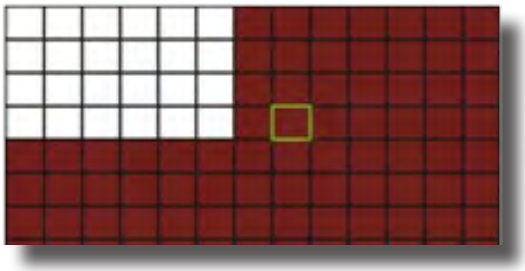
You can configure motion detection for each channel (Camera) connected to the DVR. To configure motion detection:

1. From the Main Menu click DEVICES. Then click MOTION.
2. Under STATUS, select ON to enable motion detection for the desired channel. Scroll down for additional channels. Note: If in the RECORD screen a Channel is set to OFF, MOTION is also disabled for that Channel.
3. Under SENSITIVITY, select 1 through 8. The higher the number, the more sensitive the motion detection.
4. Under MD AREA, click SETUP. The red motion grid appears over the selected channel in full screen.
5. Click the blocks in the grid to enable/disable motion detection. Red=motion detection enabled; Clear=motion detection disabled.
6. Right-click anywhere on the screen to return to the Motion Detection menu.
7. Click EMAIL, then select ON/OFF to turn on e-mail notification. E-mail must be configured. See manual for details.
8. Click APPLY. Click OK in the confirmation window.

When MD is triggered, in the Live View Screen you will see a red【M】in the Channel with a MD warning. You may also see a【R】if you set up the channel to record when an alarm is triggered.


MOTION DETECTION
CHANNEL STATUS SENSITIVITY MD AREA EMAIL
1 OFF 5 SETUP OFF
2 OFF 5 SETUP OFF
3 OFF 5 SETUP OFF
4 OFF 5 SETUP OFF
5 OFF 5 SETUP OFF
6 OFF 5 SETUP OFF
8 highest,1 lowest
DEFAULT APPLY EXIT

Motion Detect Menu



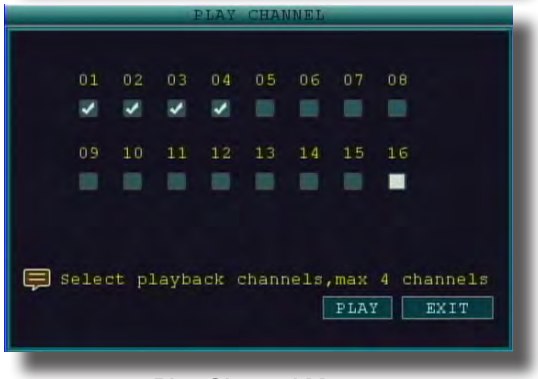
Motion Detect Grid

STEP 6 ... PLAYBACK

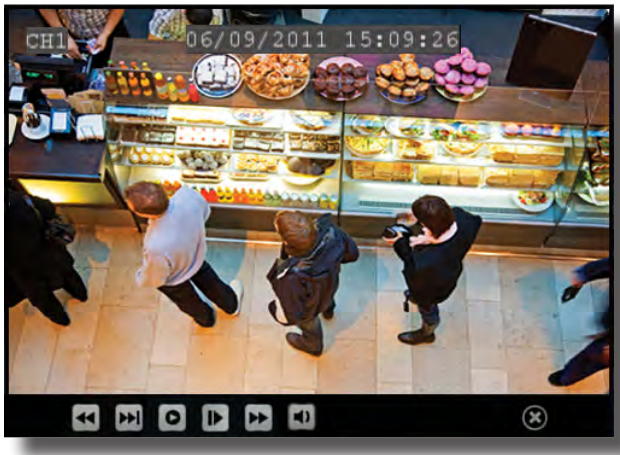
PLAYBACK Mode

View recorded video on the system through the SEARCH Menu. To begin playback:

1. There are two ways to access the SEARCH menu. Right-click anywhere on the screen and select VIDEO SEARCH from the Quick Access Menu. The SEARCH Menu opens. Or from the Main Menu select SEARCH.
   NOTE: When you first open the SEARCH Menu, it displays the current month and date.
2. Click PLAYBACK to select a specific channel. Note a maximum of 4 channels can be played back at one time.
3. Under DATE, enter a date using the Virtual Keyboard (mouse only).
4. Click SEARCH. Recorded events on the system appear in red (alarm events—includes both alarm and motion events) and green (normal recording).
5. Click a date in the Month Grid to search for video files.
6. Click a time block in the Hour Grid to view the video. Playback begins.
7. Move the mouse slightly to display the on-screen play back controls. You can also use the playback control with buttons on the remote control or front panel of the system.



Play Channel Menu



On-screen Playback Controls

On-screen Playback Controls

To use the on-screen playback controls:

1. Click the VCR-like controls to play, pause, fast forward, rewind, and slow down playback.
2. Click **X** to quit playback and return to the Search menu.

8. Under RECORD STATE, the system shows recorded events in a Month Grid and a Time Grid. The selected day of the month will be outlined in red. Green=normal recording; Red=alarm recording (includes both alarm and motion events). Click a date in the month grid to view recorded video files for that selected date in the hour grid.

Record State

First Alert®

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M08-0404-002